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THE IMPACT OF GENDER NORMED SCORING OF THE BRIEF SYMPTOM INVENTORY ON TRANS* INDIVIDUALS

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Abstract

The purpose of this research was to investigate the significance of the choice of gender normed scoring on the Brief Symptom Inventory (BSI) (Derogatis, 1993) when assessing cisgender and trans* or gender non-conforming individuals. This study compared two groups, cisgender and trans* individuals, on male and female gender normed scoring for the BSI. Each participant's responses on the BSI were scored using both male and female norms and the number of clinically significant elevations (T-score $\geq$ 63) was counted. Results indicated that regardless of gender identity or sex-assigned-at-birth (SAAB), a higher mean number of elevations was found when using male norms.

Keywords: Brief Symptom Inventory, BSI, gender norms, gender non-conforming, transgender

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Chapter I: Literature Review

The legacy of pathologizing individuals with varying sexualities and gender identities still plagues modern psychology. Remnants of this history can be found in almost all aspects of current clinical practice, from diagnostic criteria to psychological assessment tools. The potential for these outdated, overly pathologizing vestiges to harm those seeking psychological services is significant and should be examined through a diversity-affirming lens.

It is important first to have a unified understanding of the various terms that may be used throughout this discussion. The terms "gender" and "sex" are commonly used interchangeably, but there are key differences between the two. The American Psychological Association's (APA) Dictionary of Psychology differentiates between gender and sex by describing *sex* as the biological and physical traits that distinguish males and females (APA, 2015). While not a focus of this paper, it is important to note that *intersex* individuals or those with *disorders of sex development* (DSD) may have one of a variety of conditions that results in atypical physical sex characteristic development (APA, 2006) and therefore may not easily fit into sex categories of "male" or "female". The APA (2006) estimates that approximately 0.06% of the population have intersex conditions or DSD.

Gender can be described as the performance of femininity or masculinity through social, behavioral, and cultural expectations or norms. Another way to look at the difference between the two terms is that sex is traditionally assigned at birth based on an

infant's genitalia, whereas gender encompasses the social guidelines for how that assignment should be expressed (clothing choices, body hair maintenance, self-expression, et cetera). *Cis* or *cisgender* refers to individuals who identify with the gender that is congruent with the sex they were assigned at birth (Gender Equity Resource Center, 2013). Conversely, the APA defines *transgender* as "an umbrella term used to describe the full range of people whose gender identity and/or gender role do not conform to what is typically associated with their sex assigned at birth" (APA, 2015, p. 22). The wide spectrum of individuals whose lived experiences are encompassed by this APA definition may self-identify using a variety of terms, which may include transgender, trans, trans* (*sic*), genderqueer, nonbinary, gender non-conforming, transsexual, gender variant, and a plethora of others (Gender Equity Resource Center, 2013). It should be noted that those who identify as genderqueer, nonbinary, and gender non-conforming often reject the notion of the traditional "gender binary," male or female, and instead view themselves as neither male nor female, or as a combination of the two; some self-identify under the transgender umbrella and others do not (Gender Equity Resource Center, 2013).

The language that marginalized individuals and communities develop and choose to describe their lived experience is important and should be honored. However, there is not always agreement within these communities regarding the vocabulary used and terminology may become a point of contention. The term trans* with an asterisk was popularized in part by Jack Halberstam (2018) to be inclusive of the wide variety of identities that exist outside of cisgender identity. For the purposes of this discussion and research, the term *trans** will be used to refer to anyone who meets the APA definition of

transgender. As noted above, not all individuals who meet the criteria for the broad APA definition identify with the term transgender or trans*, in fact some may reject those terms entirely.

The pathologizing the trans* community has a decades-long history that is still being shaped. In the first two editions of the *Diagnostic and Statistical Manual of Mental Disorders*, homosexuality was categorized a formal psychological diagnosis. Homosexuality was not included in the third edition of the publication in 1973. Transsexualism, however, was first included in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) in 1980, with the official name of Gender Identity Disorder (American Psychiatric Association, 1980). Trans* individuals largely continued to meet criteria for Gender Identity Disorder until the release of the fifth edition of the DSM (DSM-5) in 2013 when Gender Identity Disorder was replaced with Gender Dysphoria which focuses on the distress that a trans* individual may feel in relation to the incongruence between their sex assigned at birth (SAAB) and the gender with which they identify (American Psychiatric Association, 2016). The American Psychological Association (APA) has made strides to improve psychologist and professional understanding of gender identity and to evaluate what psychologists need in order to provide competent services to individuals with varying gender identities and expressions via the formation of the APA Task Force on Gender Identity and Gender Variance. The APA Task Force has published various reports with recommendations for education and training to ensure the competence of clinicians. (See, for example, the APA publication "Guidelines for Psychological Practice with Transgender and Gender Nonconforming People" cited below).

The APA is not the only entity to make strides to rectify the pathologizing of individuals identifying as trans*. France became the first country worldwide to remove transsexualism from its official list of mental health disorders in February 2010 (Faure, 2010). As recently as June of 2018, the World Health Organization announced its intention to remove the diagnosis of "Gender incongruence" from the list of mental health disorders under the International Classification of Diseases. This change will be presented to a committee in 2019 and will likely formally go into effect in 2020 (World Health Organization, 2018).

Despite the history of pathologizing of trans* individuals based almost entirely on their gender identity, this community is still highly likely to seek psychological services. Based on a 2011 survey, the National Center for Transgender Equality (NCTE) and the National Gay and Lesbian Task Force estimated that up to 75% of all trans* people will receive mental health services at some point in their lives (Grant et al., 2011). Additionally, the same 2011 survey indicated that 41% of trans* individuals reported suicide attempts (Grant et al., 2011). It is important to note that trans* individuals seeking psychological services may not be seeking services specifically for an issue related to conflicts with their trans* identity. However, it is possible that trans* individuals seek services at higher rates because clinicians have been tasked with serving as gatekeepers for hormone therapy and gender affirmation surgery – many places require a letter from a clinician in order for trans* individuals to begin the medical transition process. Despite the reason, given the large percentages of trans* individuals seeking services, it is essential for clinicians to pursue training that increases their competence in treating those in the trans* community.

The Minority Stress Model, initially put forth by Meyer (1995), can be applied to understanding how the experience of interacting with society while identifying as trans* can impact mental health. Meyer initially postulated that external events related to one's sexuality status lead to increased stress. An example would be a landlord not renting to two men once it is discovered they are in a relationship with one another. As a result of the increased stress, individuals belonging to sexual minority groups become vigilant to stress-inducing events, such as avoiding stores or neighborhoods where they might not be welcomed. The final component of this model is that the stressful external events become internalized. This internalization causes members of minority groups to believe the messages and values of the majority being conveyed during stressful events; the overarching messaging from these stressful events perhaps being "there is no place for me in society." The result for members of the trans* community is internalized transphobia (Bullock & Wood, 2016), which could manifest as trans* individuals believing that they are unnatural or that they do not belong. Internalized transphobia can then significantly impact the mental health of trans* individuals and their ability to cope with stressful life events.

Further contributing to psychological distress, 63% of trans* respondents reported experiencing a serious act of discrimination such as assault, job loss, eviction, homelessness, loss of significant relationship (with partner or children), or denial of medical services due to bias related to their gender identity (Grant et al., 2011). Additionally, 23% of respondents reported experiencing a catastrophic level of discrimination, defined as experiencing three or more serious acts of discrimination (Grant et al., 2011). Given the way the minority stress model outlines how stressful

external events are internalized, one can concluded that the stress associated with discrimination, prejudice, violence, and stigma results in increased rates of psychological distress among members of the trans* community.

In addition to personal instances of discrimination, systemic discrimination also impacts the mental health of the trans* community. In October 2017, the United States federal government overturned a federal law that provided workplace discrimination protections for transgender employees (Horwitz & Hsu, 2017), taking a large step back regarding much-needed protections for this vulnerable community and adding another layer of external stress within the minority stress model. This leaves trans* individuals with little recourse if their employment and livelihood is threatened. Systemic discrimination can be seen, beyond legal settings, in the way that healthcare systems are structured from the process of obtaining insurance coverage to subtle instances of only having two options to choose from when selecting gender on new patient paperwork.

When members of the trans* community decide to pursue mental health services, they may be met with subtle, covert, and/or unintentional forms of discrimination and prejudice. While not intentionally discriminatory, methods of psychological assessment may not fully meet the needs of trans* clients and may be retrofitted in an unscientifically supported manner. This can also be seen in the use and scoring of self-report measures.

Self-report measures are commonly used in a variety of clinical settings because of their easy-to-administer design. In a relatively short amount of time, self-report measures are able to provide a valuable snapshot of a client's current experience and level of symptomatology that would otherwise take a lengthy amount of time to uncover using clinical interviews alone. Self-report measures developed in the 20th century tend

to provide separate scoring norms for males and females based on the differences seen in the raw scores of the standardization samples (Krishnamurthy, 2016). The underlying goal of gendered norms is to transform responses to fit into a normal curve for psychometric purposes, not to emphasize inherent differences between males and females. While the goal of gendered norms may be to reduce the impact of gender on scoring, the norms someone is compared against will impact which areas of a measure are considered elevated. This in turn may impact which areas a clinician will focus their treatment interventions on first.

Based on a search of the APA Test Database, Pearson, and other search engines, as of this writing, no assessment measures regarding intelligence or personality were found that have been normed or validated on the trans* population. To further complicate matters, a number of assessment tools are scored based on gender norms with unclear guidelines or recommendations for use with trans* clients, leading to a rapidly snowballing list of questions. Does it matter how old the client was when they realized they were trans*? Does scoring choice depend on if the client has begun medical transition? Could scoring recommendations be impacted based on the amount of minority stress experienced? But the biggest question may be: does it really even matter which gender is selected for scoring purposes?

The choice of which gendered norms to use does seem to matter for at least some measures or specific scales on those measures. The Minnesota Multiphasic Personality Inventory (MMPI), now its second edition, a commonly used self-report assessment, includes a scale (Masculinity-Femininity) that was initially intended to identify homosexual men (Keo-Meier et al., 2015). A study examining MMPI-2 scores for

transgender men found that scores for Masculinity-Femininity and Social Introversion were significantly higher when compared with female controls (Keo-Meier et al., 2015). Additionally, nine of the 10 MMPI-2 scales, all except Hypomania, were significantly elevated (with T-scores[1] greater than 65) for transgender men when compared against male controls (Keo-Meier et al., 2015). Both of these differences were seen prior to hormone therapy. This research indicates that choice of gender norms can significantly impact which scales are considered to be elevated at a clinically significant level, thus having the potential to shape diagnosis and course of treatment.

Non-gendered norms were developed for the MMPI-2 restructured clinical scales in 2003 (Ben-Porath & Forbey, 2003). A conversion chart of the non-gendered norms is included on the last page of the MMPI-2 RC Scales monograph. Currently, the test makers do not provide the option for clinicians to obtain non-gendered profile forms to use when scoring their clients responses. Additionally, the monograph does nothing substantial to promote the use of these non-gendered norms, including them just before the Appendix with no mention in the body of the monograph, almost as if an afterthought. The creation of the non-gendered norms may be a step in the right direction for providing clinicians with the tools needed to assess trans* clients. However, more guidance regarding how to choose when to utilize which norms would be incredibly beneficial for the treatment of trans* clients.

Trans*-affirmative assessment recommends that clinicians "should aim not to use any assessments that are scored based on cisgender gender norms, unless a non-gendered scoring option does not exist" (Keo-Meier & Fitzgerald, 2017, p. 8). All too often a

[1] T-Scores result from the transformation of raw scores into standardized scores. A mean raw scores will result in a T-Score of 50 with a standard deviation of 10.

formal, validated, non-gendered scoring option does not exist. The lack of scoring options and scientific research on the topic leaves clinicians making a variety of choices when scoring assessments for their trans* clients: selecting the option congruent with the client's gender identity, scoring based on the sex assigned at birth, or double scoring and looking at aggregate results. It should be noted that double scoring or creating gender-neutral norms based on gendered norms would likely still lack trans* representation in the sample from which the norms are drawn. Current research estimates that 1.4 million people or 0.58% of the population in the United States identifies as trans* (Flores, Herman, Gates, & Brown, 2016), thus non-gendered norms may not provide the most effective reference for scoring assessments of trans* clients.

Often self-report measures are used when completing gender evaluations for youth who may be seeking medical services to aid in gender affirmation such as surgery or hormone therapy. Historically, clinicians have used the gender norms associated with the patient's sex assigned at birth (Edwards-Leeper, Feldman, Lash, Shumer, & Tishelman, 2017). A consequence of this historical practice can be seen in efforts to create psychological profiles for the trans* community. In 2017 a psychological profile of the first sample trans* youth seeking medical gender affirmation in the United States was explored utilizing four different adolescent measures: the Child Behavior Checklist, the Children's Depression Inventory, the Revised Children's Manifest Anxiety Scale, and the Peirs-Harris 2 self-perception scale (Edwards-Leeper et al., 2017). Edwards-Leeper and team (2017) utilized norms congruent with sex assigned at birth and incongruent with the patient's gender identity while establishing this profile in order to remain consistent with previous research. Their research found that transgender girls revealed more "worry" than

transgender boys. Additionally, they did not report any other significant differences between transgender girls and transgender boys. Their study did indicate that older transgender youth experienced higher levels of anxiety and lower happiness, satisfaction, and self-concept when compared to younger transgender youth. While their study was relatively small, with 56 participants, it is unclear how different the psychological profile would be if norms congruent with gender identity were used. This study provides a good springboard for further questions about the general psychological profile of trans* youth. Given the demographic make-up of participants in this study—under the age of 18, predominantly white, and seeking medical gender affirmation services—this study raises potential questions about the differences in the psychological profiles of trans* adolescents vs. trans* adults; trans* people of color, who likely experience additional minority stress because of their race; and trans* individuals who either cannot afford or choose not to pursue gender affirmation surgery or hormone therapy.

Trans* individuals who are able and choose to pursue mental health services may encounter the Brief Symptom Inventory (BSI), which is a commonly used self-report measure in clinical settings. The BSI was developed as a multidimensional symptom measurement that can be administered in as few as 10 minutes (Derogatis, 1993). It is commonly used in clinical settings to track symptoms over time, in response to clinical interventions. Additionally, the BSI can be valuable in research settings when time is limited. Therefore, the BSI has clinical utility for both examining symptomology at one point in time or examining symptomology trends over time.

The BSI consists of 53 items that reflect symptom patterns of medical patients, psychiatric patients, and nonpatients (Derogatis, 1993). The 53-items map onto nine

primary symptom dimensions (Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism). Individuals are asked to respond based on their symptoms for the past seven days. The BSI dimensions do not map directly onto diagnostic criteria for disorder diagnosis but instead provide information about a client's current clinical status.

The BSI is currently scored based on gender norms. Those in support of the use of gender norm scoring often point to research indicating that women have high scores on the dimensions of somatization, obsession-compulsion, depression, and anxiety (Urbán et al., 2014). Various studies have also found that men tend to have higher scores on the psychoticism and hostility dimensions (Urbán et al., 2014). The gender norms and differences in dimension elevations invite researchers to ask what trans* norms may look like. Researchers sought to examine the mental health of trans* adults in the United States utilizing the BSI with an online sample (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013). They then developed new non-gendered community norms from a sample of 517 (presumably cisgender) females and 605 (presumably cisgender) males. Trans* participant data was then compared against these new non-gendered community norms. Their findings indicate that trans* participants had disproportionately higher scores on the depression, anxiety, and somatization dimensions (Bockting et al., 2013). Additionally, transgender women specifically scored higher on dimensions of depression, anxiety, and somatization than transgender men (Bockting et al., 2013); a primary contributing factor may be transmisogyny. Much of literature surrounding trans* assessment, including the study referenced above, stems from samples significantly lacking in racial and socioeconomic diversity. It is essential that future research makes

strides to have diverse representation, especially if a trans* normative sample is ever formed.

Rationale for the present study

Given the paucity of published resources to guide clinicians when assessing trans* clients, clinicians are left questioning which box to check when scoring trans* individual's self-report responses without knowing the potentially harmful impact their selection may have on their client. The present study aimed to compare the impact of scoring BSI responses for trans* individuals utilizing gender-identity-congruent norms and sex-assigned-at-birth (SAAB) norms versus scoring the responses of cisgender individuals utilizing both gender-identity congruent and incongruent norms in a diverse sample of rural and urban residents.

Research Questions

Research Question I. What impact does choosing gender identity congruent norms versus gender identity incongruent norms have on the number of clinically significant elevations, T-score greater than 63, for cisgender individuals?

Research Question II. What impact does choosing gender identity congruent norms versus sex-assigned-at-birth congruent norms have on the number of clinically significant elevations, T-score greater than 63, for trans* individuals?

Research Question III. What impact does the use of gender-identity-incongruent norms have on cisgender individuals compared to trans* individuals?

Research Question IV. What impact does the use of gender-identity-congruent norms have on cisgender individuals compared to trans* individuals?

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Chapter II: Methodology

Participants

Participants were recruited to participate via Murray State University's SONA system as well as through flyers in the Office of LGBT Programming on Murray State University's campus and in conjunction with the Office of LGBT Programming's scheduled events. Additionally, participants outside of Murray State University were recruited via social media affinity groups. The entire cisgender group was comprised of participants solely from Murray State University's SONA system. The trans* participants were recruited in conjunction with Murray State University's Office of LGBT Programming and from Chicago based affinity groups via social media. Only participants age 18 and older were recruited for this study. The sample consisted of data from 50 cisgender individuals [37 cisgender females, mean age 19.24 (SD=1.85) and 13 cisgender males, mean age 19.46 (SD=0.97)] and 25 trans* individuals [18 trans* SAAB female, mean age 23.44 (SD=3.75) and 7 trans* SAAB male, mean age 28.71 (SD=8.34)]. Age was the only demographic variable that showed statistically significant differences between the cis, mean age 19.3 (SD=1.64) and trans*, mean age 24.92 (SD=5.64) groups ($t(73) = 6.427$, $p < .0001$).

Of the participants, the majority were White (85.33%) followed by Black/African American (6.67%); the remainder of participants identified themselves as belonging to other ethnic groups. Most of participants noted a high school diploma or equivalent as

their highest degree received (80%) and the remaining participants noted either an associate's degree (10.67%) or bachelor's degree (9.33%) as their highest degree received. When looking at the population of the area participants live, 65.3% noted that they live in a city or town with less than 50,000 people and 34.7% stated that they currently live in a city with a population of more than 50,000 people. Refer to table one.

Table 1

Demographics of Sample as Percentage

Characteristic	Cis-Female (n = 37)	Cis-Male (n = 13)	Trans* SAAB Female (n = 18)	Trans* SAAB Male (n = 7)
Ethnicity				
White	83.78	84.62	83.33	85.71
Hispanic/Latino	0.00	0.00	5.55	0.00
Black/African Am.	10.81	7.69	0.00	0.00
Other	5.41	7.69	11.12	14.29
Education Level Completed				
Less than High School	0.00	0.00	0.00	0.00
High School or Equivalent	91.89	100	44.45	71.42
Associate Degree/Vocational	8.11	0.00	22.22	14.29
Bachelor's Degree	0.00	0.00	33.33	14.29
Advance or Professional Degree	0.00	0.00	0.00	0.00
Population of Current Residence				
Less than 50,000 people	62.16	100	55.55	42.86
Greater than 50,000 people	37.84	0.00	44.45	57.14
Gender Identity				
Male	0.00	100	5.55	0.00
Female	100	0.00	0.00	14.29
Trans male/Trans man	0.00	0.00	27.78	0.00
Trans female/Trans woman	0.00	0.00	0.00	71.42
Genderqueer/Queer/Gender Non-conforming	0.00	0.00	66.67	14.29

Note. SAAB = sex-assigned-at-birth

Materials

The Brief Symptom Inventory (BSI) consists of 53 items and takes approximately 8-10 minutes to administer (Derogatis, 1993), as described earlier in this paper. Each item is rated on a five-point scale indicating level of distress ranging from "not at all" (0) to "extremely" (4). The raw scores are then averaged and converted to standardized T-scores with scores greater than or equal to 63 indicating clinical significance. The BSI has a total of 12 scales, nine Primary Symptom Dimensions and three Global Indices. The internal consistency reliability of all nine dimensions ranges from .71 to .85. Test-retest reliability coefficients range from a low of .68 for the Somatization dimension to a high of .91 for Phobic Anxiety. The Global Indices have a test-retest coefficient range of .87 for the Positive Symptom Distress Index to .90 for the Global Severity Index. Convergent validity with the MMPI yields coefficients $\geq .30$ for the nine dimensions of the BSI and the clinical scales of the MMPI. Participants completed a short survey to gather demographic information such as age, education level, geographical location, gender identity (see Appendix A). Additionally, participants completed several other clinical measures that were not a focus of this study.

Procedure

Prior to completing the survey or BSI, participants were given an informed consent document to read and had the opportunity to ask the researcher any questions before proceeding. After reviewing an informed consent document, asking questions, and providing consent; participants completed the 53-item Brief Symptom Inventory, followed by a short survey with demographic information and clinical measures that were not the focus of the present study. Upon completion of the survey and additional clinical

measures, participants recruited via Murray State University's SONA system were given course credit. While direct compensation was not provided, participants recruited outside of SONA were able to choose an LGBTQ+ non-profit for the researcher to make a donation to as thanks for their participation. The BSI was then scored using both male and female norms.

Chapter III: Results

A 2 (cisgender or trans*) x 2 (SAAB - male or female) x 2 (male or female norms) x 12 (BSI scales) mixed model ANOVA was performed to examine the interactions between gender identity and norms used on T-scores for the 12 BSI scales. A 2x2x2x12 mixed model ANOVA was utilized as a more conservative test of the overall elevation of profiles. The individual scale level interactions were not examined or reported because they are not relevant to the research questions of this study. A significant main effect was found for norms used, male vs female norms, F (1, 71) = 120.72, $p < .0001$, indicating that choice of norms does matter. However, there was not a significant interaction between norms and SAAB F (1, 71) = 1.00, p = 0.3213 nor was there a significant interaction between norms and gender identity F (1, 71) = 0.46, p = 0.4978. Additionally, the interaction between norms, gender identity, and SAAB was not significant F (1, 71) = 0.12, p = 0.7307.

A 2 (cisgender or trans*) x 2 (SAAB - male or female) x 2 (male or female norms) mixed-model ANOVA was performed to examine the relationship between the norms used and gender identity on the number of elevations on the BSI. The number of elevations (i.e., T-scores above 63 on the 12 BSI scales) was calculated using male and female norms for cis-females, cis-males, trans* individuals whose SAAB was female, and trans* individuals whose SAAB was male. Please refer to figure 1 and table 2 for means and standard deviations.

Figure 1

Number of BSI Scale Elevations Based on Norms

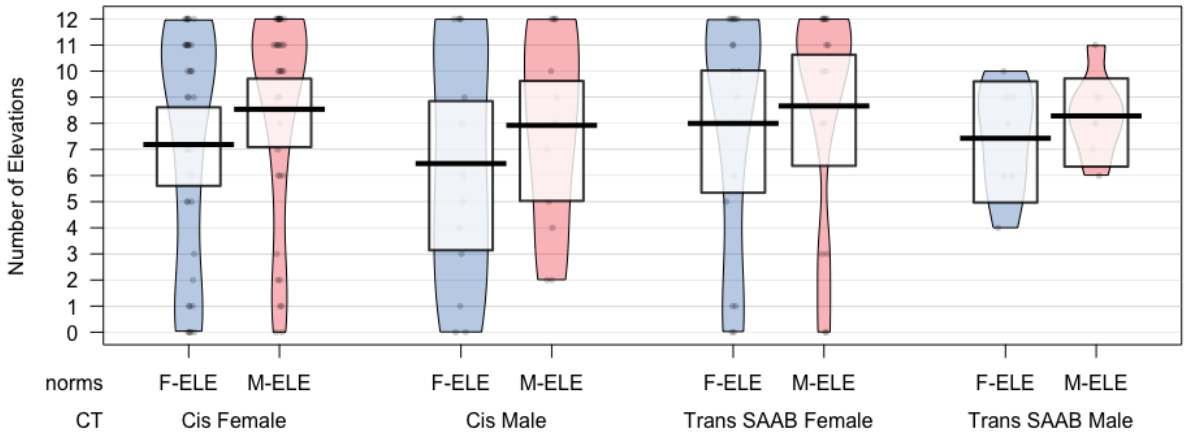

Table 2

Mean Number of Elevations on 12 BSI scales

	Cis-Female (n = 37)	Cis-Male (n = 13)	Trans* SAAB Female (n = 18)	Trans* SAAB Male (n = 7)
Number of Elevations Female Norms	M=7.19 SD=4.40	M=6.46 SD=4.52	M=8.00 SD=4.48	M=7.43 SD=1.99
Number of Elevations Male Norms	M=8.54 SD=3.93	M=7.92 SD=3.58	M=8.67 SD=4.08	M=8.29 SD=1.48

There was a significant main effect for norms used on number of elevations $F(1,71) = 79.01$, $p<.0001$, such that a higher mean number of elevations was found when using male norms (M = 8.44, SD = 3.76) versus females norms (M = 7.28, SD = 4.30). However, there were no significant interactions between trans* or cis identity and norms; SAAB and norms; nor SAAB, gender identity, and norms on the number of elevations. At the within-individual-level, every participant, except for one, either displayed a greater number of elevations when male norms were utilized or the same number of elevations between male and female norms.

Chapter IV: Discussion

The goal of this study was to investigate the impact of gender normed scoring of the BSI on trans* individuals. Awareness regarding the impact of choosing one set of gender norms over another would aid clinicians in thoughtfully interpreting elevations on BSI scales for all clients, especially those who identify as trans*. Currently, the BSI manual does not provide any guidance for clinicians regarding which set of norms should be utilized for clients who do not identify as cisgender, leaving the door open for potential harm if a clinician chooses a set of norms without fully considering the impact. Analysis from this study examined the changes in the total number of clinically significant elevations, T-scores greater than or equal to 63, when using male versus female norms for cisgender females, cisgender males, trans* SAAB females, and trans* SAAB males. Regardless of SAAB or gender identity, each group demonstrated a statistically significant greater number of clinical scale elevations when male norms were used, when compared to female norms. This highlights that, regardless of gender identity, the use of male norms will likely result in a higher number of elevations and thus has the potential to over-pathologize. As previously mentioned, clinicians use the scale elevations to tailor treatment for their clients, thus there is the potential for undue harm if trans* client responses are artificially elevated based on choice of gender norms. The APA (2015) *Guidelines for Psychological Practice with Transgender and Gender*

Nonconforming People recommends that clinicians interpret gender normed assessments for trans* individuals with caution. The guidelines encourage clinicians to consider differential diagnoses; multiple facets of their client's experience, such as the minority stress model; and intersecting identities, such as race, before developing treatment plans and making formal diagnoses (APA, 2015).

There was no significant difference in the impact of gender norm choice on trans* participants versus cisgender participants. This indicates that choosing one set of norms over another does have an impact as previously mentioned. However, whether the norms selected are gender-identity-congruent, gender-identity-incongruent, SAAB-congruent, or SAAB-incongruent does not appear to make a difference for either cisgender or trans* individuals, as use of male norms resulted in a greater number of elevations, on average.

The finding of a greater number of elevations using male norms is consistent with a popular belief and historical findings that cisgender males are less likely to report or endorse symptom related items and to seek treatment. However, a relatively recent study found that there is a not a statistically significant difference between the rate at which males and females seek treatment for mental health difficulties (Tedstone Doherty & Kartalova-O'Doherty, 2010). This more recent study may suggest that difference in males and females in treatment utilization has changed over time. Regardless of actual treatment utilization or symptoms reported, utilizing male norms on the BSI yields a higher number of elevations, on average, for everyone.

It was expected that cisgender females would have a higher average number of elevations when male norms are used and conversely, it was expected that cisgender males would have a higher average number of elevations when female norms are utilized,

given that the norms are incongruent with their gender identity. Additionally, it was expected that since these norms are gendered, there would be a different relationship between those who are cisgender and those who are trans* in the number of elevations seen. The data show that the impact of gender norm choice is different from what was expected, with everyone regardless of SAAB and gender identity displaying a higher number of elevations when male norms are utilized, on average. Thus, questions can be raised regarding the practice of utilizing gender norms, particularly ones that were initially established over two decades ago.

As noted above, the gender differences in response style and treatment seeking behavior that was previously seen, is no longer supported by recent research. Furthermore, a study published in 2018 that analyzed data from 2016 found 2.7% of youth surveyed identified as transgender or gender non-conforming (Rider, McMorris, Gower, Coleman, & Eisenberg, 2018). This is an increase from the previously estimated rate, using 2014 data, of 0.7% (Herman, Flores, Brown, Wilson, & Conron, 2017). As the rates of those who identify as transgender and gender non-conforming increases, gendered norms may become an outdated relic from a time when Gender Identity Disorder was a DSM diagnosis (DSM-IV; APA, 1994). At the very least, there is a need for updated BSI norms and for the re-examination of the value in utilizing gendered norms versus gender-neutral norms.

Limitations & Future Directions

One limitation of the current study was that sample sizes were small, especially the trans* group, which was half the size of the cisgender group. The small sample size overall, led to very small group sizes when comparing cisgender females, cisgender

males, trans* individuals SAAB female, and trans* individuals SAAB male. As a result, statistical analyses were underpowered, increasing the likelihood of Type II Error or false negative. Suggestions for how future researchers may more effectively recruit can be found towards the end of this paper.

While the groups were not statistically different on demographic variables aside from age, another limitation of this study is the lack of diversity among both the cisgender and trans* groups with regards to race, education level, and population of their current residence. Future researchers should strive to cultivate a diverse and representative sample.

Given the understanding that the use of male and female norms impacts the number of clinical elevations found, it may be beneficial to understand exactly which BSI scales are most affected. In future research, with sufficient power, analysis at the individual scale level could demonstrate where or on which clinical scale differences are most likely. For example, differences between chosen norms may be more pronounced on somatic symptoms, interpersonal sensitivity, or hostility.

Future researchers should investigate if there is a statistically significant difference in the BSI scale raw scores of cisgender female, cisgender male, trans* SAAB female, and trans* SAAB male individuals. When scoring participant responses on the BSI, raw score totals are calculated for each of the scales, those raw scores were then converted into T-scores that corresponded with male and female norms. The process of converting from raw scores to gender normed T-scores is what changes the interpretation of a score as clinically elevated or not. One way to check the validity of utilizing gender normed T-scores, would be to look at raw scores which have not been converted and

therefore not influenced by historical and potentially outdated understandings gender identity and of differences between genders. With sufficient power, analysis could be conducted to examine if there is a statistically significant difference in raw scores and the way these groups report their symptoms on the BSI scales.

Additionally, for the purposes of this study, a broad criterion for trans* categorization was utilized that is in line with the APA definition outlined early on in this paper. As a result, participants included in the trans* group identified as non-binary, genderqueer, or gender non-conforming as well as transgender. Thus the trans* sample was not comprised solely of people who identify as transgender. Rather, it was a more heterogeneous group that may obscure statistical differences if analyzed at a more discrete level.

Recruitment of transgender participants proved difficult even with the researcher's personal connections to the community. Many potential participants echoed sentiments rooted in the decades-long distrust of psychological and medical researchers, such as asking the researcher many questions before beginning the survey; stating that they do not participate in psychological research without direct compensation; and asking for multiple assurances that their identity would remain confidential. Additionally, participants raised concerns related to the minority stress model (Meyer, 1995) discussed earlier in this paper, stating that they did not have time to participate due to work or meeting basic survival needs. This indicates that there may be larger systemic roadblocks to this type of research.

Future researchers should plan to spend time forming deep relationships with the trans* community, to strengthen and utilize existing relationships, and to provide direct

compensation for participation. More broadly speaking, researchers interested in how psychological research can help trans* individuals should spend time with members of the community and collaborate with them to identify what research areas they feel would be most beneficial to their overall wellbeing. Utilizing a model like the Participatory Action Research (PAR) may be beneficial when working with the trans* and other LGBTQ+ communities. PAR model enables action by engaging potential participants and members of communities as co-researchers who help develop research questions that are central to their lives (Baum, MacDougall, & Smith, 2006). Therefore in the PAR model, the line between research and participants is blurred; participants are no longer subjects but instead partners in the entire research process including deciding research questions, study design, data collection, analysis, and result reporting (Baum, MacDougall, & Smith, 2006). This model may be helpful in garnering participation and endorsement from the trans* community while also ensuring that the research conducted will be valued by members of the communities researched.

The present study demonstrated that choosing one set of norms over the other on the BSI does impact the number of clinically significant elevations seen. Additionally, the findings of this study indicate that everyone, regardless of SAAB or gender identity had a greater number of clinical elevations when male norms were used, on average. This opens the door for a dialogue regarding how assessment measures can be more accessible to those outside the gender binary and if gender normed scoring still has the same level of relevance it had historically. Despite the limitations, it is the researcher's hope that this study serves as a stepping stone for future research regarding gender normed scoring and how it impacts those with diverse gender identities.

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Appendix A: Demographic Survey

Age: _____

Ethnicity (Please circle one):

White

Hispanic or Latino

Black or African American

Native American or American Indian

Asian / Pacific Islander

Other

Prefer Not to Answer

Which of the following best describes the population of the town or city you currently live in? (Please circle)

Less than 50,000 people

Greater than 50,000 people

Education (Please circle highest degree received):

Less than High School

High School or Equivalent

Associate Degree or Vocational Training

Bachelor's Degree

Advanced or Professional Degree

What sex were you assigned at birth, on your original birth certificate?

Male

Female

What is your current gender identity? (Check all that apply)

Male

Female

Trans male/Trans man

Trans female/Trans woman

Genderqueer/Queer/Gender non-conforming

Different identity (please state):

_____

Appendix B: IRB Approval Letter

MURRAY STATE UNIVERSITY

Institutional Review Board

328 Wells Hall
Murray, KY 42071-3318
270-809-2916• msu.irb@murraystate.edu

TO: Laura Liljequiest, Psychology

FROM: Jonathan Baskin, IRB Coordinator

DATE: 1/24/2019

RE: Human Subjects Protocol I.D. – IRB # 19-086

The IRB has completed its review of your student's Level 1 protocol entitled *Clinical Assessment Norms*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.

Your stated data collection period is from 1/24/2019 to 1/23/2020.

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

This Level 1 approval is valid until 1/23/2020.

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 1/23/2020. You must reapply for IRB approval by submitting a Project Update and Closure form (available at murraystate.edu/irb). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.